

CLAIMS

What is claimed is:

1. A method for facilitating distributed function discovery in a peer-to-peer network, comprising:

5 receiving a broadcast request for a service function from a peer client at a peer server;

locating information regarding a location remote to the peer server having the requested service function using a stored list of service functions locally stored at the peer server; and

10 responding to the peer client with a response containing the location remote to the peer server if information on the requested service function is located.

2. A method for facilitating distributed function discovery of claim 1, further comprising listening for a broadcast response packet over the network for a randomly
15 generated delay response period prior to said responding.

3. A method for facilitating distributed function discovery of claim 2, wherein said responding is only performed upon non-receipt of the response packet at expiry of the delay response period.

20 4. A method for facilitating distributed function discovery of claim 2, further comprising canceling said responding upon receipt of the broadcast response packet during the randomly generated delay response period.

5. A method for facilitating distributed function discovery of claim 1, wherein the response is digitally signed.

6. A method for facilitating distributed function discovery of claim 5, wherein the digitally signed response is signed by a 1024-bit VeriSign digital certificate.

7. A method for facilitating distributed function discovery of claim 1, further comprising:

receiving a packet regarding a remotely located designated service function provider; and

storing information regarding the remotely located designated service function provider.

8. A method for distributed function discovery in a peer-to-peer network, comprising:

broadcasting a packet requesting a service function;

receiving a response from a responding peer server, the packet containing information regarding a designated provider for the requested service function, the information including location of the designated provider remote to the responding peer server; and

accessing the requested service function from the designated service provider at the location specified in the response of the responding peer server.

9. A method for distributed function discovery in a peer-to-peer network of claim 8, wherein the response is digitally signed.

5 10. A method for distributed function discovery in a peer-to-peer network of claim 9, wherein the digitally signed response is signed by a 1024-bit VeriSign digital certificate.

10 11. A computer program product for facilitating distributed function discovery in a peer-to-peer network, comprising:

computer code that receives a broadcast request for a service function from a peer client at a peer server;

15 computer code that locates information regarding a location remote to the peer server having the requested service function using a stored list of service functions locally stored at the peer server;

computer code that responds to the peer client with a response containing the location remote to the peer server if information on the requested service function is located; and

a computer readable medium that stores said computer codes.

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12. A computer program product for facilitating distributed function discovery of claim 11, further comprising computer code that listens for a broadcast response packet over the network for a randomly generated delay response period prior to said responding.

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13. A computer program product for facilitating distributed function discovery of claim 12, wherein computer code that responds only performs upon non-receipt of the response packet at expiry of the delay response period.

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14. A computer program product for facilitating distributed function discovery of claim 12, further comprising computer code that cancels the response upon receipt of the broadcast response packet during the randomly generated delay response period.

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15. A computer program product for facilitating distributed function discovery of claim 11, wherein the response is digitally signed.

16. A computer program product for facilitating distributed function discovery of claim 15, wherein the digitally signed response is signed by a 1024-bit VeriSign digital certificate.

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17. A computer program product for facilitating distributed function discovery of claim 11, further comprising:

computer code that receives a packet regarding a remotely located designated service function provider; and

5 computer code that stores information regarding the remotely located designated service function provider.

18. A computer program product for distributed function discovery in a peer-to-peer network, comprising:

10 computer code that broadcasts a packet requesting a service function;

computer code that receives a response from a responding peer server, the packet containing information regarding a designated provider for the requested service function, the information including location of the designated provider remote to the responding peer server;

15 computer code that accesses the requested service function from the designated service provider at the location specified in the response of the responding peer server; and

a computer readable medium that stores said computer codes.

20 19. A computer program product for distributed function discovery of claim 18, wherein the response is digitally signed.

Year	1950	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054	2055	2056	2057	2058	2059	2060	2061	2062	2063	2064	2065	2066	2067	2068	2069	2070	2071	2072	2073	2074	2075	2076	2077	2078	2079	2080	2081	2082	2083	2084	2085	2086	2087	2088	2089	2090	2091	2092	2093	2094	2095	2096	2097	2098	2099	2100																			
Population	1,000,000	1,050,000	1,100,000	1,150,000	1,200,000	1,250,000	1,300,000	1,350,000	1,400,000	1,450,000	1,500,000	1,550,000	1,600,000	1,650,000	1,700,000	1,750,000	1,800,000	1,850,000	1,900,000	1,950,000	2,000,000	2,050,000	2,100,000	2,150,000	2,200,000	2,250,000	2,300,000	2,350,000	2,400,000	2,450,000	2,500,000	2,550,000	2,600,000	2,650,000	2,700,000	2,750,000	2,800,000	2,850,000	2,900,000	2,950,000	3,000,000	3,050,000	3,100,000	3,150,000	3,200,000	3,250,000	3,300,000	3,350,000	3,400,000	3,450,000	3,500,000	3,550,000	3,600,000	3,650,000	3,700,000	3,750,000	3,800,000	3,850,000	3,900,000	3,950,000	4,000,000	4,050,000	4,100,000	4,150,000	4,200,000	4,250,000	4,300,000	4,350,000	4,400,000	4,450,000	4,500,000	4,550,000	4,600,000	4,650,000	4,700,000	4,750,000	4,800,000	4,850,000	4,900,000	4,950,000	5,000,000	5,050,000	5,100,000	5,150,000	5,200,000	5,250,000	5,300,000	5,350,000	5,400,000	5,450,000	5,500,000	5,550,000	5,600,000	5,650,000	5,700,000	5,750,000	5,800,000	5,850,000	5,900,000	5,950,000	6,000,000	6,050,000	6,100,000	6,150,000	6,200,000	6,250,000	6,300,000	6,350,000	6,400,000	6,450,000	6,500,000	6,550,000	6,600,000	6,650,000	6,700,000	6,750,000	6,800,000	6,850,000	6,900,000	6,950,000	7,000,000	7,050,000	7,100,000	7,150,000	7,200,000	7,250,000	7,300,000	7,350,000	7,400,000	7,450,000	7,500,000	7,550,000	7,600,000	7,650,000	7,700,000	7,750,000	7,800,000	7,850,000	7,900,000	7,950,000	8,000,000	8,050,000	8,100,000	8,150,000	8,200,000	8,250,000	8,300,000	8,350,000	8,400,000	8,450,000	8,500,000	8,550,000	8,600,000	8,650,000	8,700,000	8,750,000	8,800,000	8,850,000	8,900,000	8,950,000	9,000,000	9,050,000	9,100,000	9,150,000	9,200,000	9,250,000	9,300,000	9,350,000	9,400,000	9,450,000